CLAIMS

We Claim:

1. In a process for producing a high WVTR film comprising:

a) extruding a precursor film from a polyolefin/filler combination;

b) optionally embossing said precursor film to impose thereon in a pattern of multiple film thickness; the improvement including passing said precursor film through at least one pair of interdigitating grooved rollers to impart greater water vapor transmission to said film.

2. The process of claim 1, wherein said polyolefin is selected from the group consisting of m-LLDPE, Z-N LLDPE, polypropylene (PP), copolymers polypropylene, and combinations thereof;

wherein said filler is CaCO3;

wherein said polyolefin and said filler are present in said film in a polyolefin/filler ratio of from 3:1 - 1:2; and

wherein said film has a WVTR above 100 g/m^2/day @ 38° C and 90% RH.

3. The process of claim 1 wherein said polyolefin is selected from the group consisting of m-LLDPE, PP, and combinations thereof;

wherein said filler in said film in a polyolefin/filler ratio of from 2:1 - 2:3; and

wherein said film has a WVTR above 200 g/m^2/day @ 38° C and 90% RH.

4. The process of claims 2 or 3 wherein said film additionally comprises an elastomer selected from the group consisting of SBS and SIS, wherein said elastomer is present in said film from 5-40 pphp.

5. In a method of forming a high WVTR film, the improvement comprising:

a) passing a precursor film through at least one pair of interdigitating grooved roolers, said rollers having a depth sufficient to impart a WVTR of at least 100 g/m^2/day, and

b) wherein said precursor film includes a polyolefin about 100 parts, a filler present in the range of from 35 to 200 parts per hundred parts of said polyolefin.

6. The method of claim 5 wherein said polyolefin is selected from the group consisting of m-LLDPE, Z-N LLDPE, PP, copolymer PP, and combinations thereof, wherein said filler is $CaCO_3$;

wherein said filler is present in said film from 50 to 150 pphp; and

wherein said film has a WVTR above 100 g/m^2/day.

7. The process of claim 6 wherein said film additionally comprises an elastomer selected from the group consisting of SBS and SIS, wherein said elastomer is present in said film from 5-30 pphp.

8. A method of making a high WVTR film from a precursor film, comprising:

(a) simultaneously passing at least a single precursor film through a sufficiently constrictive nip between two interdigitating grooved rolls to effect lateral stretching of said precursor film;

(b) passing said film of (a) over a means for extending the fabric barrier to its fullest resultant width; wherein said film of (a) or (b) has a WVTR exceeding 100 g/m^2/day; and

wherein said precursor film is made from a polyolefin selected from the group consisting of m-LLDPE, Z-N LLDPE, PP, and combinations thereof, and $CaCO_3$ present in said precursor film from 35-200 pphp.

9. A process of claim 8 wherein said film additionally comprises an elastomer selected from the group consisting of SBS and SIS, wherein said elastomer is present in said film from 5-30 pphp.

10. The process of claim 9 wherein said film additionally comprises an elastomer selected from the group consisting of SBS and SIS, wherein said elastomer is present in said film from 5-25 pphp.